IN THE SPECIFICATION

Please replace the paragraph beginning on page 3, line 13, with the following replacement paragraph:

A1

Although the above-described illustrative embodiment is particularly well suited for use in transmission applications involving external ~~asynchronous transfer mode (~~ATM~~)~~ transmitted over ~~digital subscriber line (~~DSL~~)~~ network connections, the invention can also be implemented in other types of communication systems including, for example, Frame Relay systems, IP systems, or in conjunction with any other type of encapsulation technique. In addition, the invention can be used with other types of transport mechanisms and communication links.

Please replace the paragraph beginning on page 6, line 14, with the following replacement paragraph:

A2

FIG. 2 shows a portion 200 of the system 100 in greater detail. The portion 200 may be implemented, e.g., primarily in the gateway 110, primarily in the DSLAM 112, partly in the gateway 110 and partly in the DSLAM 112, in the RAS 118, or in one or more other elements of the system 100. The link variant determination and protocol configuration techniques of the present invention ~~is~~are thus not restricted to use in CPE or in any other particular type of network device, and may be distributed across multiple devices. It may be assumed, for illustrative purposes, that the portion 200 is implemented primarily in an ATU-R device corresponding to the gateway 110.

Please replace the paragraph beginning on page 7, line 13, with the following replacement paragraph:

A3

The set of logical access interfaces 220 includes a logical link control (LLC) interface, a point-to-point protocol (PPP) interface, an LLC-PPP interface, an Internet protocol (IP) interface, an LLC-IP interface, an Ethernet interface, and an LLC-Ethernet interface. As previously noted, each of these interfaces corresponds to a particular link variant. The PPP and LLC-PPP interfaces are

coupled to a PPP driver 222. The LLC, IP, LLC-IP, Ethernet and LLC-Ethernet interfaces are coupled to a 1483 driver 224 which operates in accordance with the above-noted RFC 1483 entitled "Multi-protocol encapsulation over ATM." A particular one of the interfaces is activated or otherwise selected for use based on a result of the link variant determination to be described in greater detail below.

A3

Please replace the paragraph beginning on page 20, line 19, with the following replacement paragraph:

FIG. 5 shows a state diagram for an exemplary VC activation state machine 212-1, 212-2 or 212-3 of FIG. 2. The state diagram includes a Null state 502, a VC Active state ~~302~~504, and the VC Administration Initiation state 302 previously described in conjunction with FIG. 3. From the Null state 502, generation of an INITIALIZE_STATE_MACHINE indicator coincides with a transition to the VC Administration Initialization state 302. In this state, the previously-described autosensing procedures are carried out in order to determine the particular link type required by the CPE. Once this process is complete, the system transitions to the VC Active state 504, and performs periodic maintenance procedures while in that state. Generation of a VC_DOWN indicator will cause a transition from state 504 back to the Null state 502. Also from state 504, generation of a CARRIED_PROTOCOL_DOWN indicator will cause a transition back to state 302.

A4